Appendix B
Meteorological Data

This section contains meteorological data derived from various regulatory and non-regulatory sites. The data provides a comparative analysis of winds speed, wind direction, wind gusts and concentration data. Please note that meteorological instruments measure at different heights, and at different time intervals. By taking, the actual time of measurement and assuring that all data represented is in Pacific Standard Time (PST) there is uniformity of the data. In addition, not all stations measure at the exact same time, i.e. measurements at 053 and 056 therefore, comparisons are measurements within a 60-minute period. While there may be some overlapping and slight differences the comparative analysis provides the reader with a better understanding of the regional effect of the Exceptional Event.

FIGURE B-1
METEOROLOGICAL SITES IN SOUTHEASTERN CALIFORNIA AND YUMA, ARIZONA

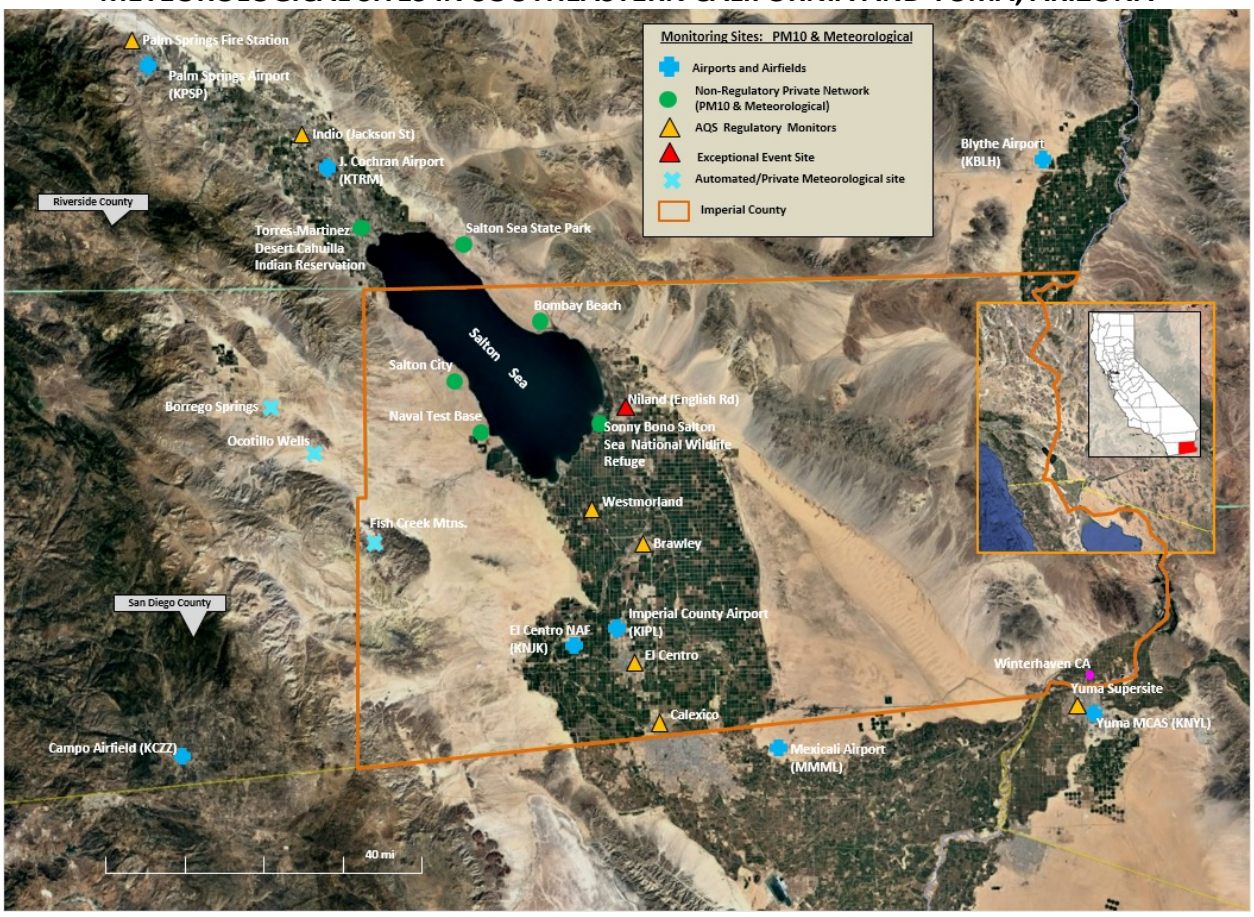


Fig B-1: This image shows the meteorological sites and the air quality monitoring sites used in this document. Google Earth base map. Inset locator map of California from Wikipedia

IMPERIAL COUNTY SITES
FIGURES B-2 THROUGH B-13
FIGURE B-2
EL CENTRO NAF (KNJK)
WIND SPEED & GUSTS (AVERAGES) AND DIRECTION

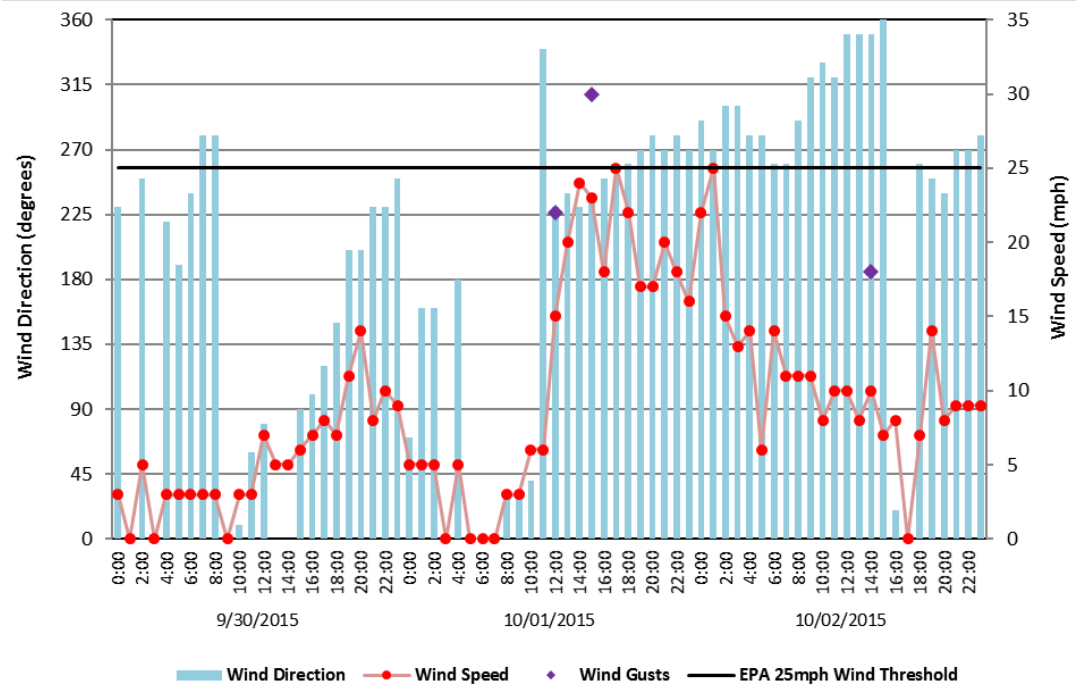
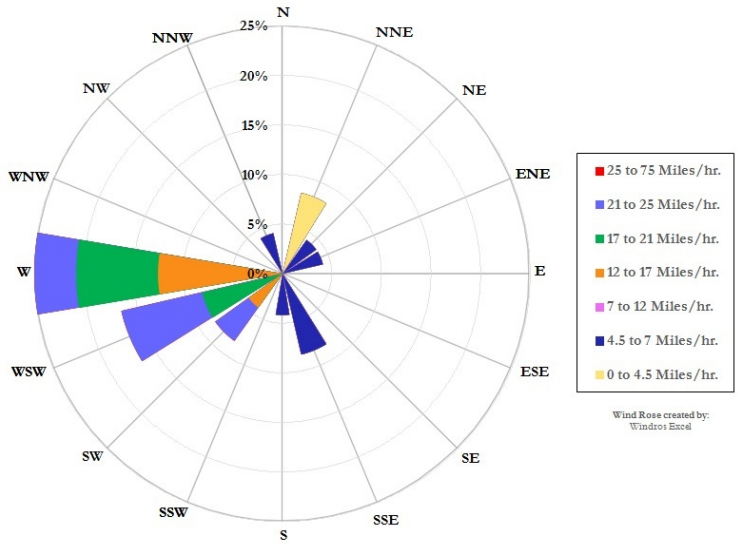


FIGURE B-3
EL CENTRO NAF (KNJK) WIND ROSE – OCTOBER 1, 2015



Figs B-2 & B-3: El Centro NAF winds just reached 25 mph on October 1, 2015. Wind data from the NCEI's QCLCD

FIGURE B-4
IMPERIAL COUNTY AIRPORT (KIPL)
WIND SPEED & GUSTS (AVERAGES) AND DIRECTION

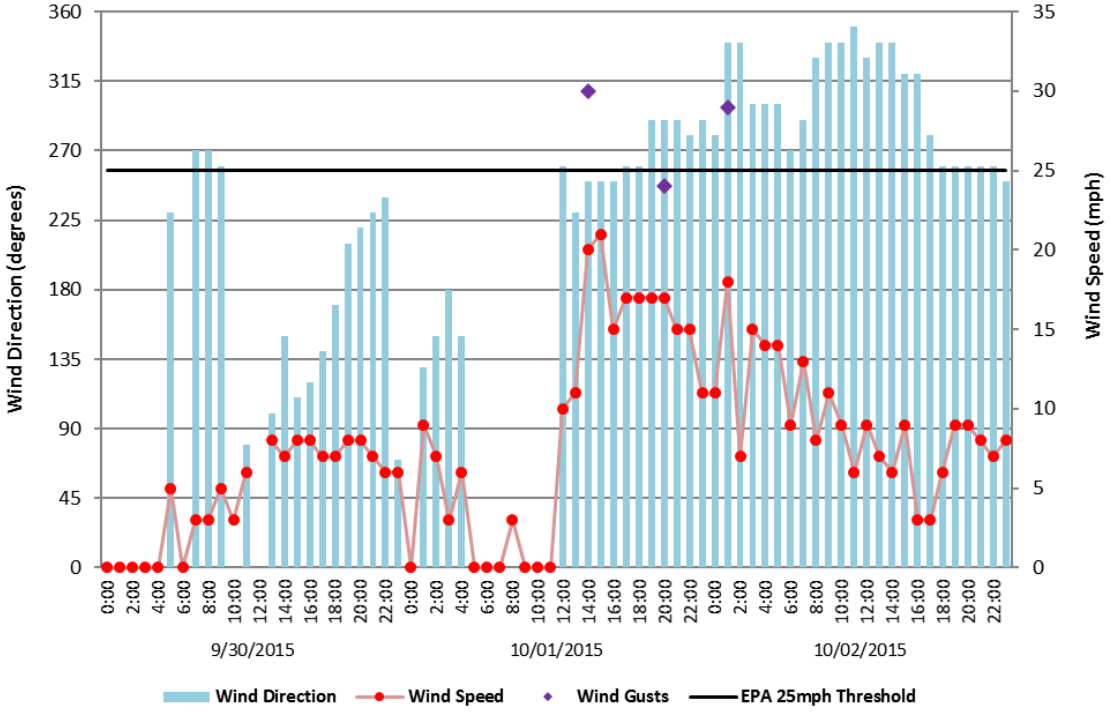
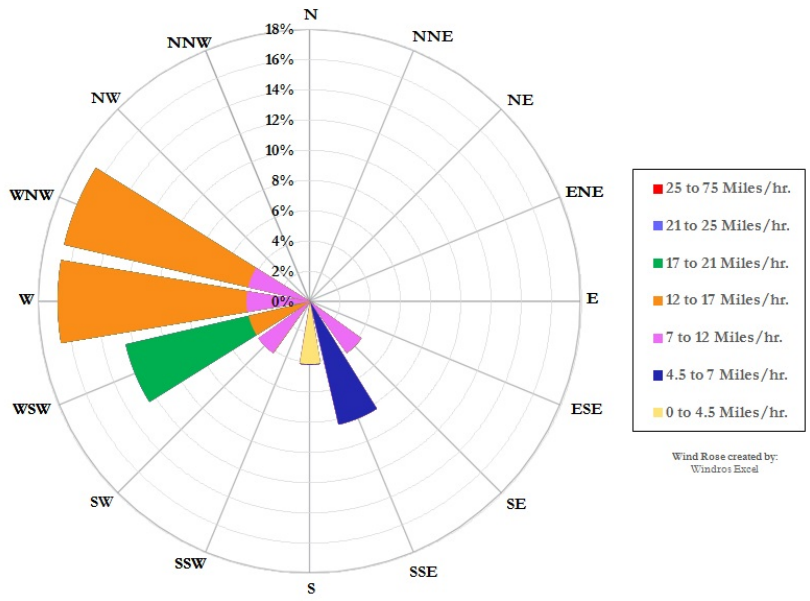


FIGURE B-5
IMPERIAL COUNTY AIRPORT (KIPL) WIND ROSE – OCTOBER 1, 2015



Figs B-4 & B-5: Wind data from the NCEI's QCLCD

FIGURE B-6
CALEXICO WIND SPEED & DIRECTION

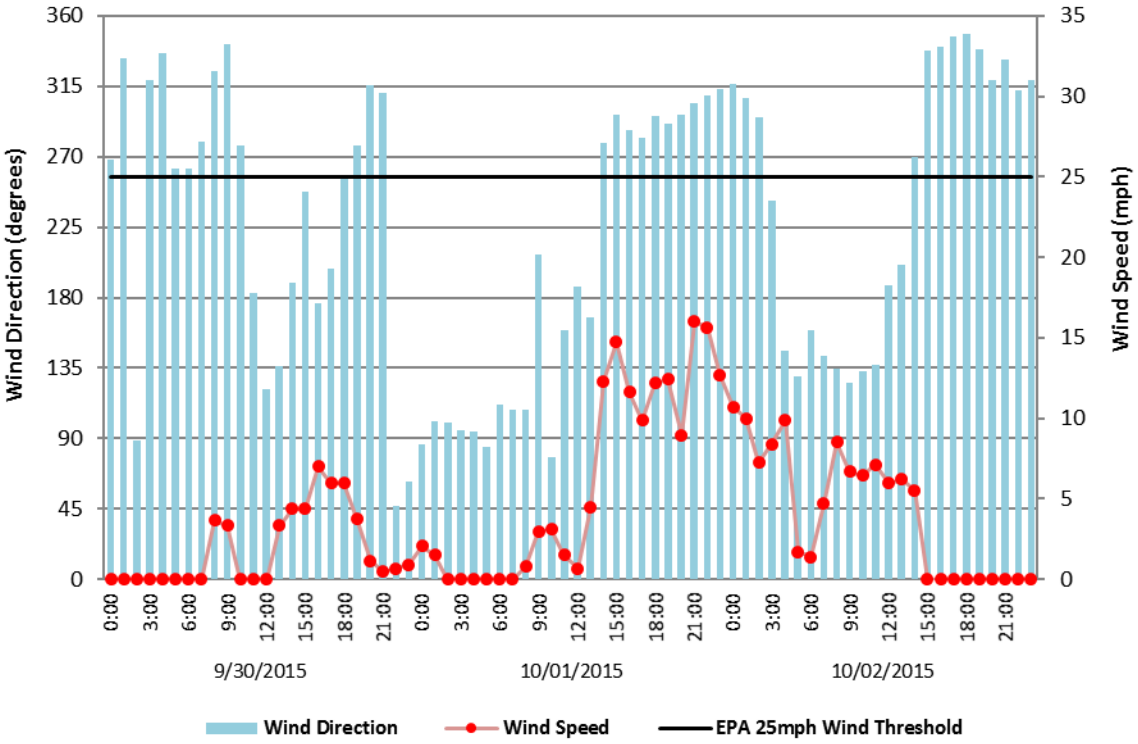
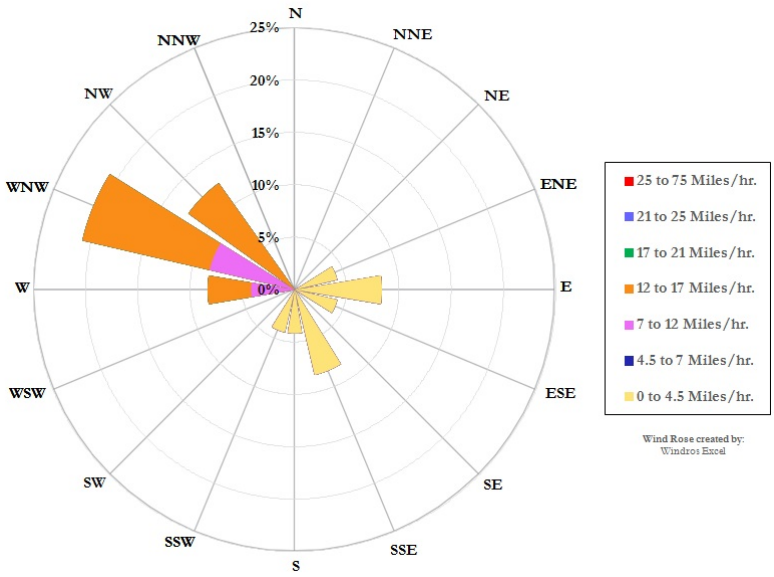


FIGURE B-7
CALEXICO WIND ROSE – OCTOBER 1, 2015



Figs B-6 & B-7: Wind data from the EPA's AQS data bank

FIGURE B-8
EL CENTRO (9TH St) WIND SPEED & DIRECTION

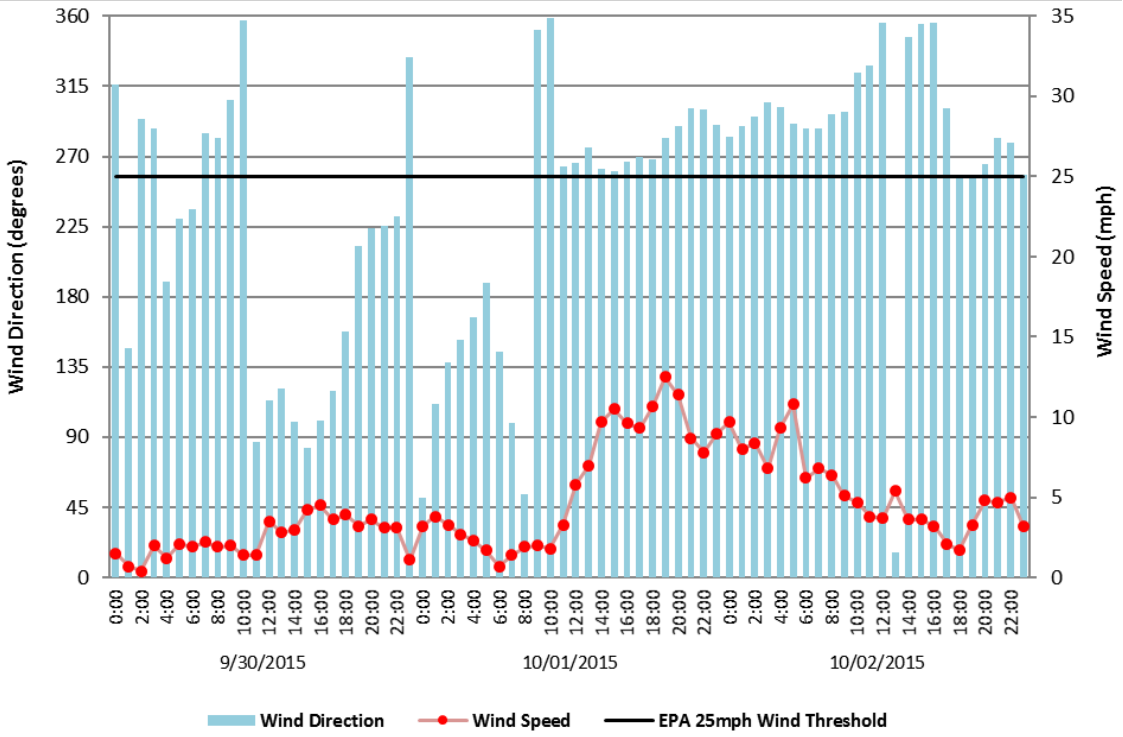
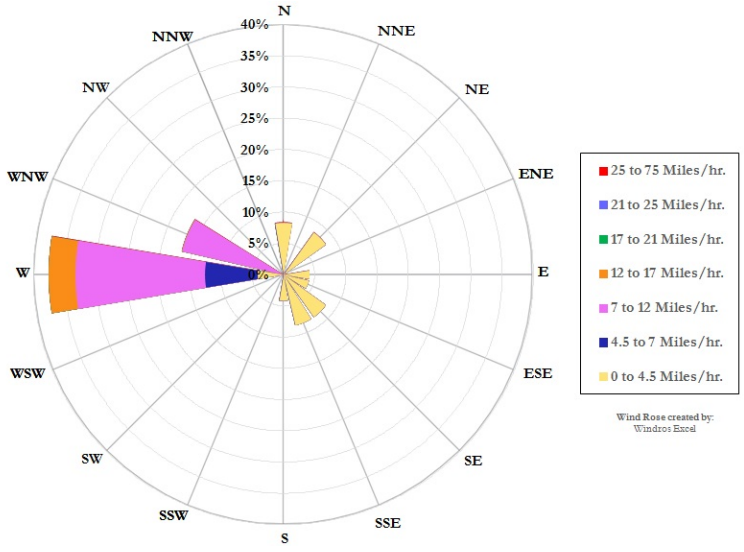


FIGURE B-9
EL CENTRO WIND ROSE – OCTOBER 1, 2015



Figs B-8 & B-9: Wind data from the EPA's AQS data bank

FIGURE B-10
NILAND WIND SPEED & DIRECTION

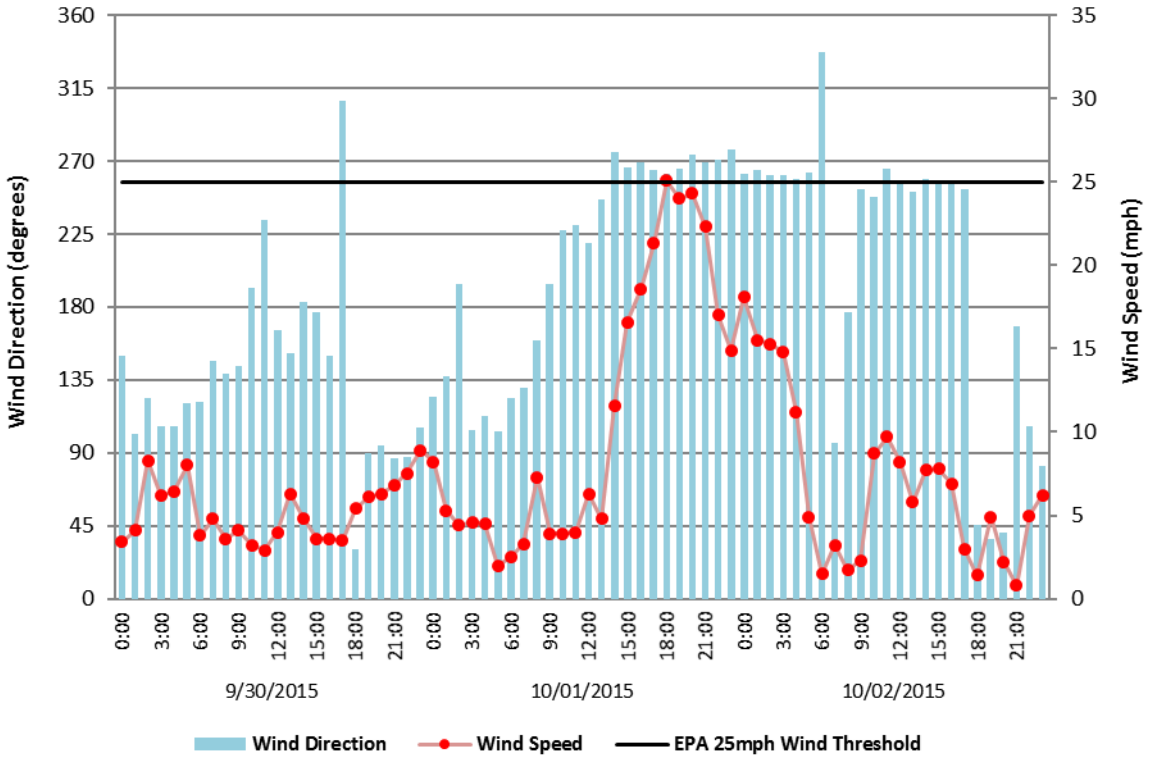
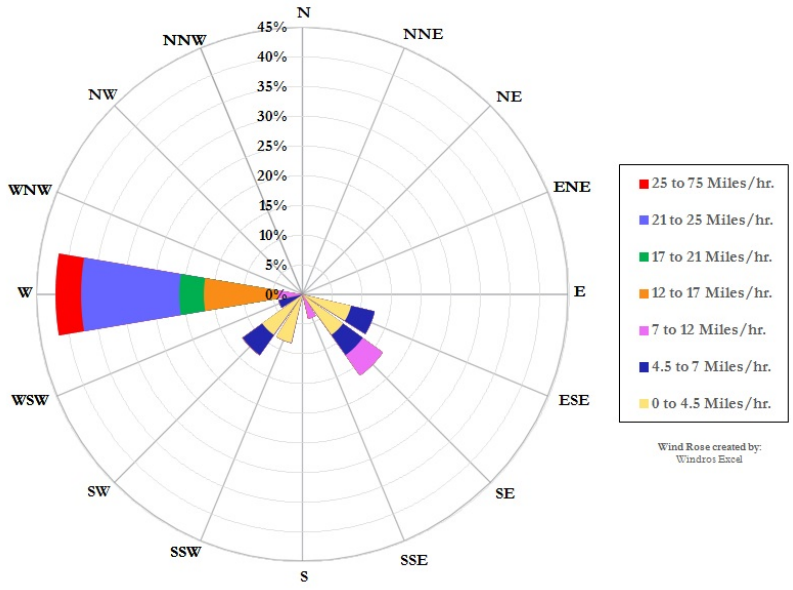


FIGURE B-11
NILAND WIND ROSE – OCTOBER 1, 2015



Figs B-10 & B-11: Wind data from the EPA's AQS data bank

FIGURE B-12
WESTMORLAND WIND SPEED & DIRECTION

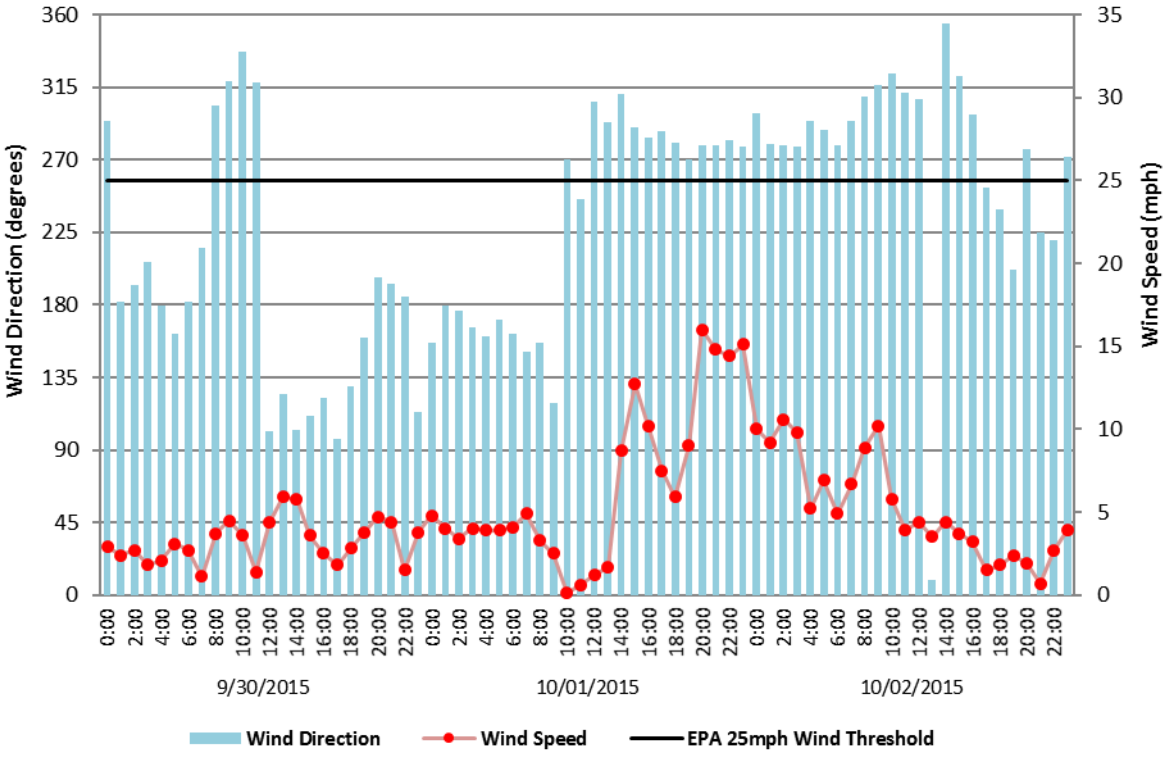
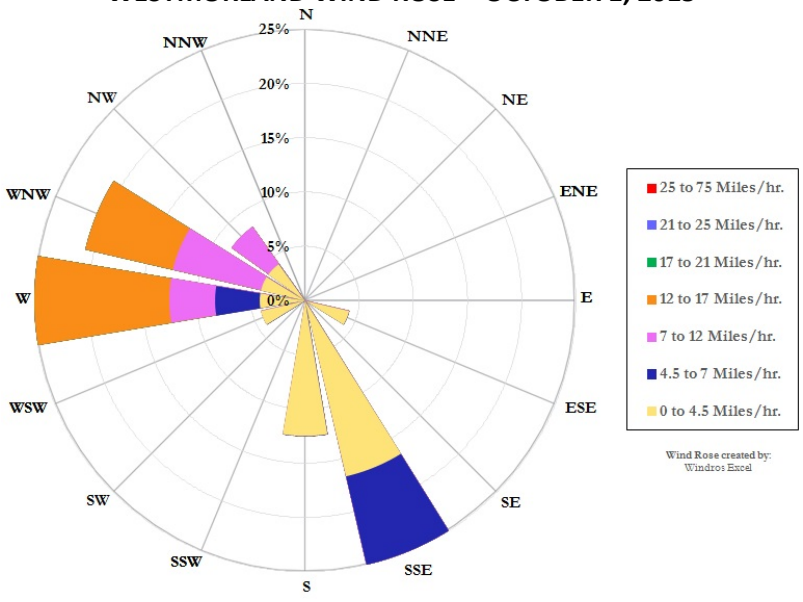


FIGURE B-13
WESTMORLAND WIND ROSE – OCTOBER 1, 2015



Figs B-12 & B-13: Wind data from the EPA's AQS data bank

EASTERN RIVERSIDE COUNTY SITES

FIGURE B-14
PALM SPRINGS INTERNATIONAL AIRPORT (KPSP)
WIND SPEED & GUSTS (AVERAGES) AND DIRECTION

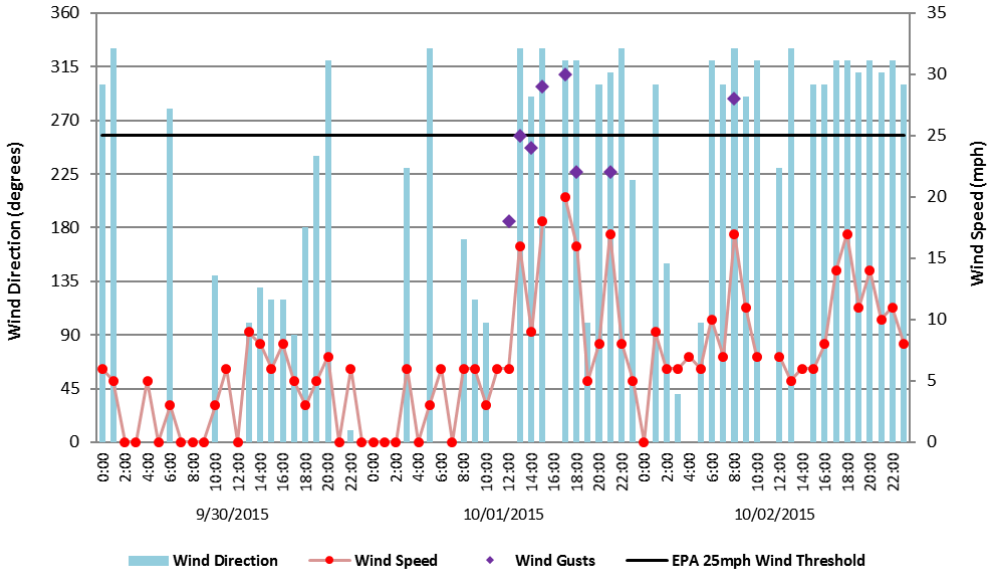


Fig B-14: Wind data from the NCEI's QCLCD

FIGURE B-15
JACQUELINE COCHRAN REGIONAL AIRPORT (KTRM)
WIND SPEED & GUSTS (AVERAGES) AND DIRECTION

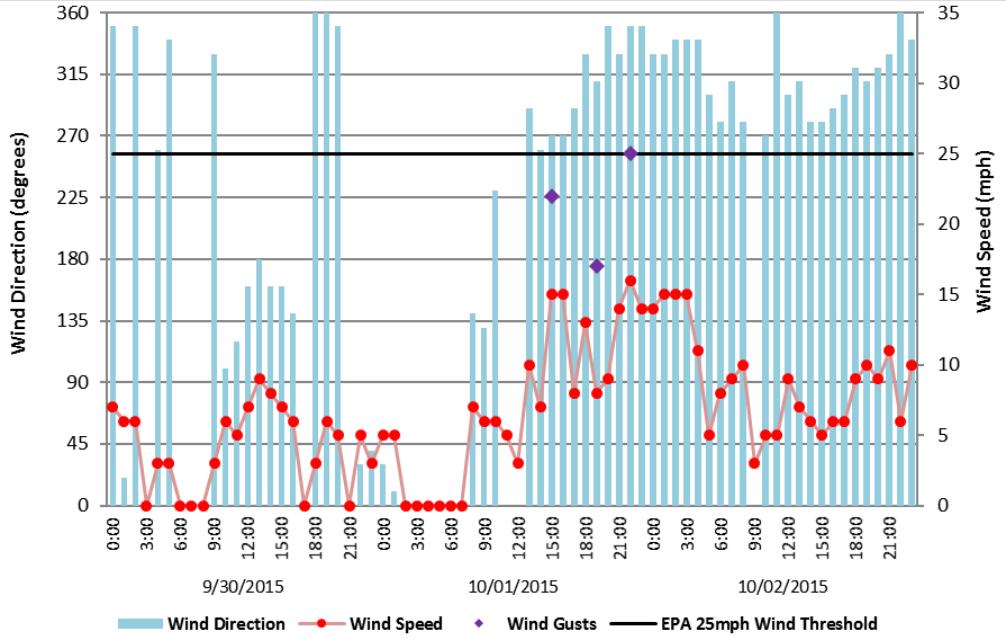


Fig B-15: Wind data from the NCEI's QCLCD

FIGURE B-16
BLYTHE AIRPORT (KBLH)
WIND SPEED & GUSTS (AVERAGES) AND DIRECTION

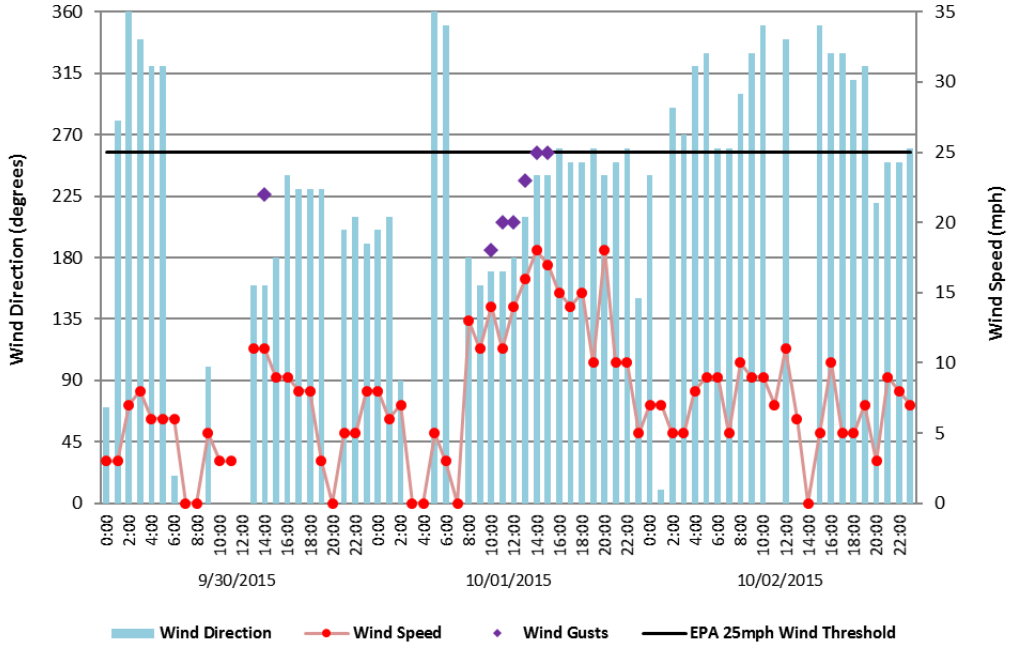


Fig B-16: Wind data from the NCEI's QCLCD

SOUTHERN SAN DIEGO COUNTY

FIGURE B-17
CAMPO AIRPORT (KCZZ)
WIND SPEED & GUSTS (AVERAGES) AND DIRECTION

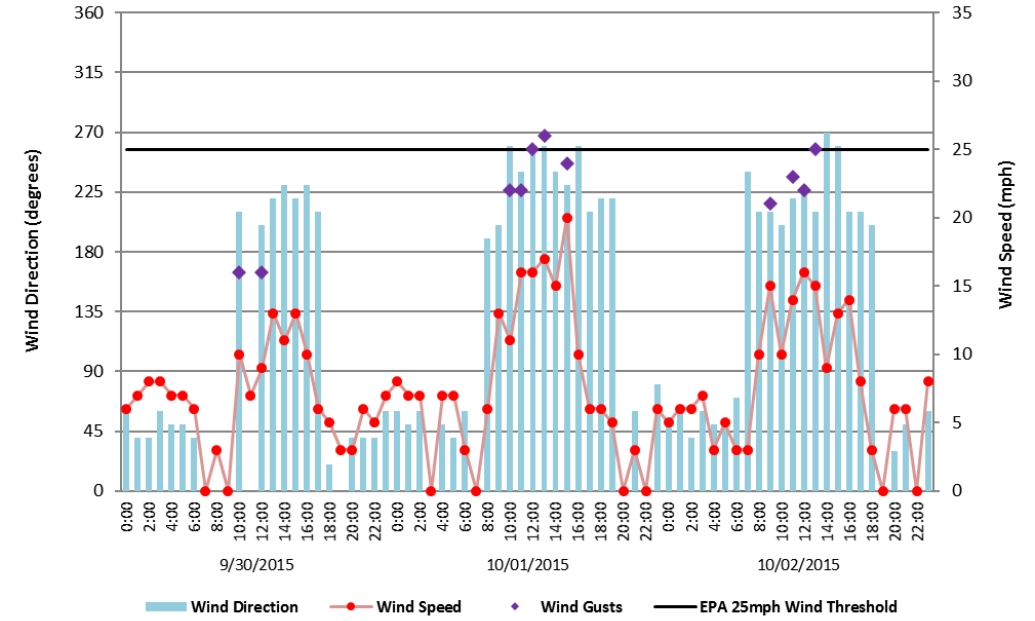


Fig B-16: Wind data from the NCEI's QCLCD

SOUTHWESTERN ARIZONA

FIGURE B-17
YUMA MCAS (KNYL)
WIND SPEED & GUSTS (AVERAGES) AND DIRECTION

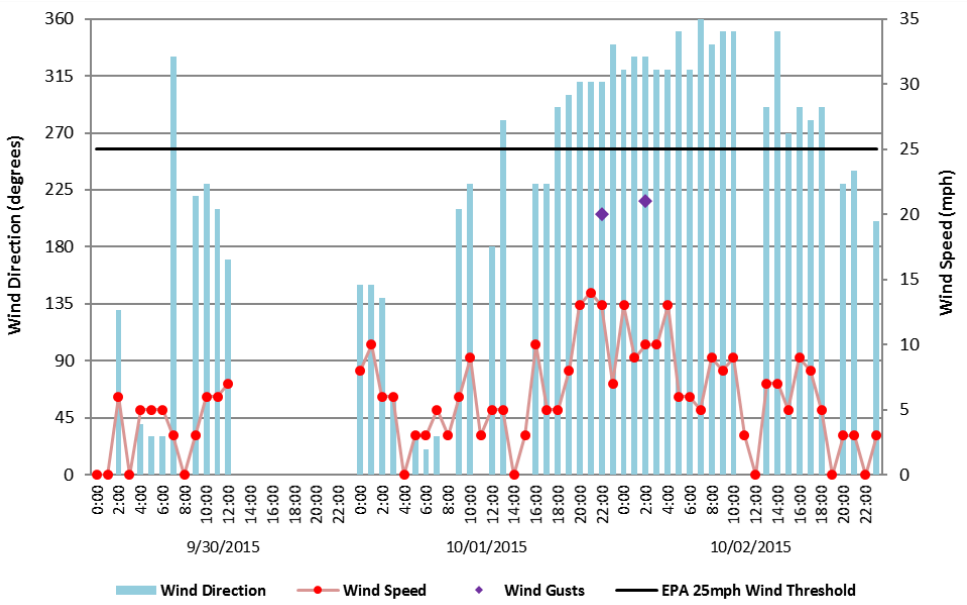


Fig B-17: Wind data from the NCEI's QCLCD

NORTHERN MEXICO

FIGURE B-18
MEXICALI INTERNATIONAL AIRPORT (MMML)
WIND SPEED (AVERAGES) AND DIRECTION

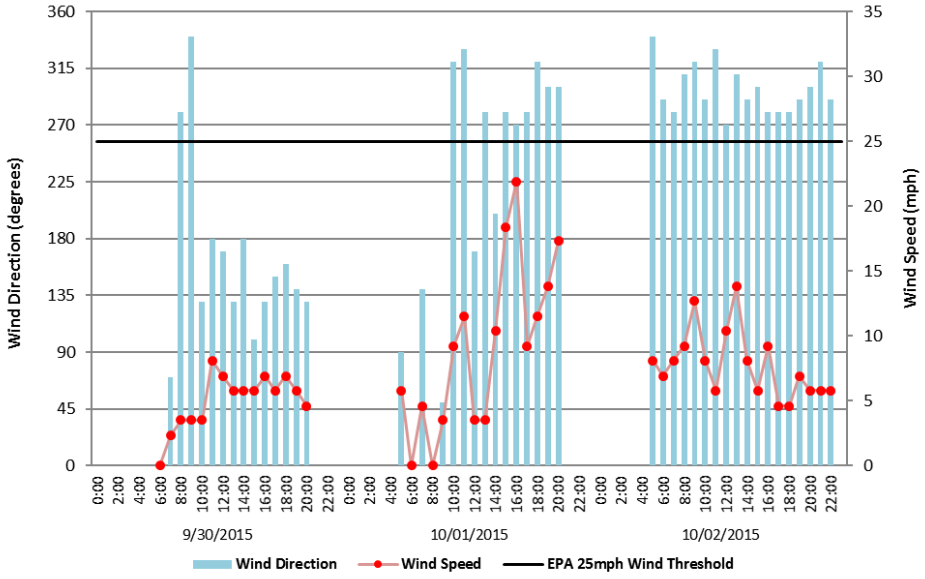


Fig B-18: Wind data from the NCEI's QCLCD

UPSTREAM SITES

FIGURE B-19
OCOTILLO WELLS
WIND SPEED & GUSTS (AVERAGES) AND DIRECTION

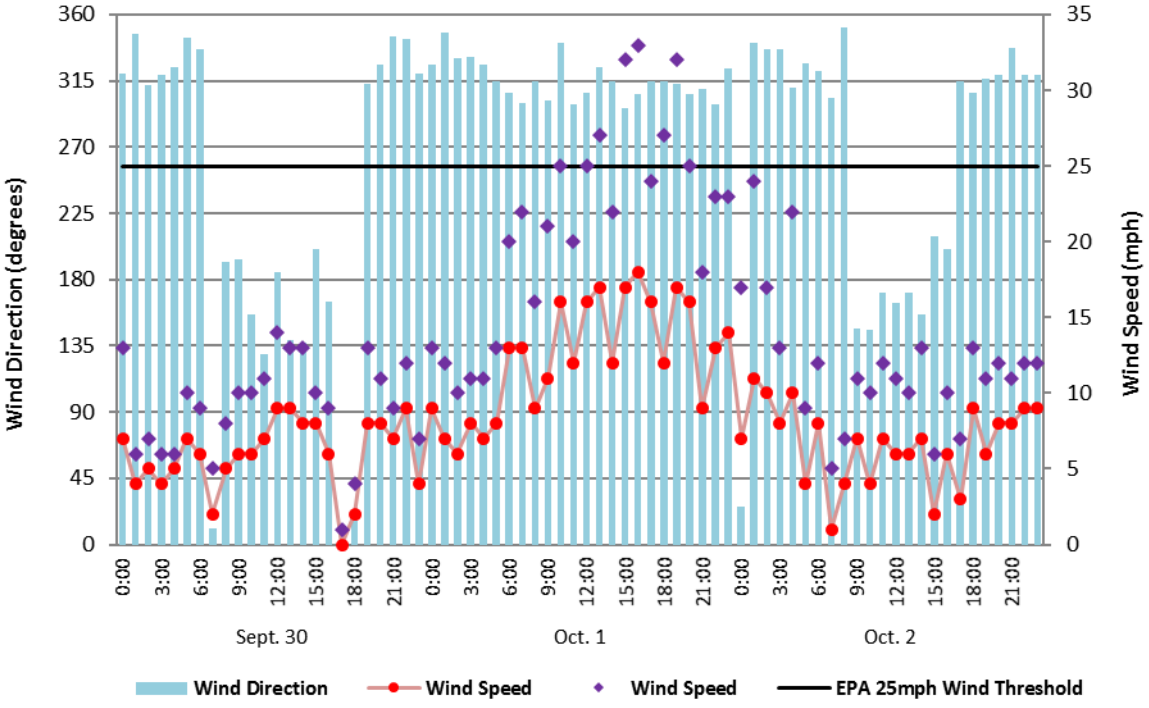
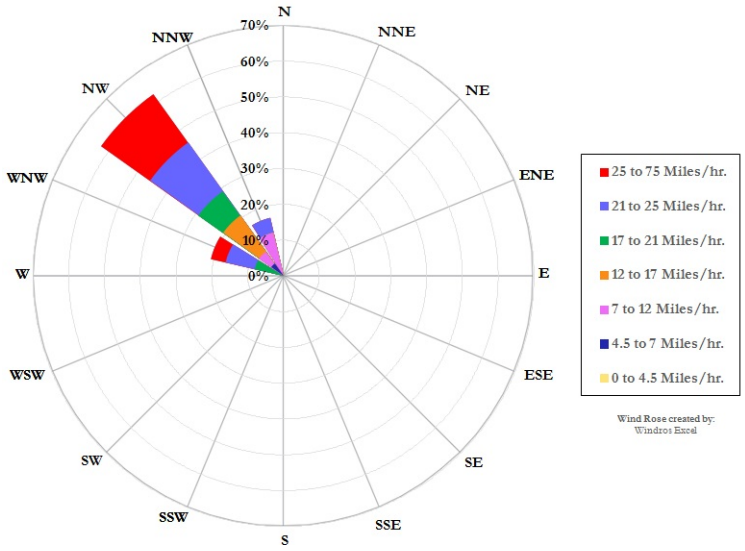


FIGURE B-20
OCOTILLO WELLS WIND ROSE (GUSTS ONLY) – OCTOBER 1, 2015



Figs B-19 & B-20: Ocotillo Wells (MesoWest Station ID KD6RSQ-5) from the University of Utha's MesoWest system

FIGURE B-21
FISH CREEK MOUNTAINS
WIND SPEED & GUSTS (AVERAGES) AND DIRECTION

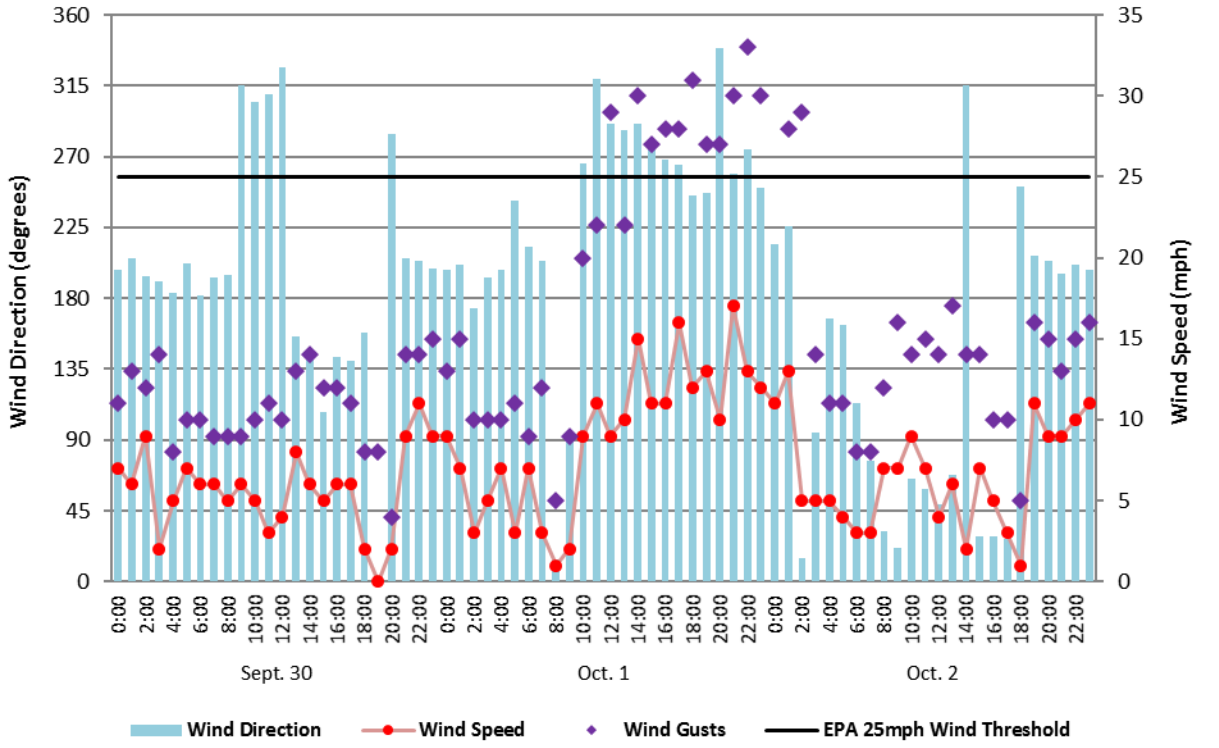
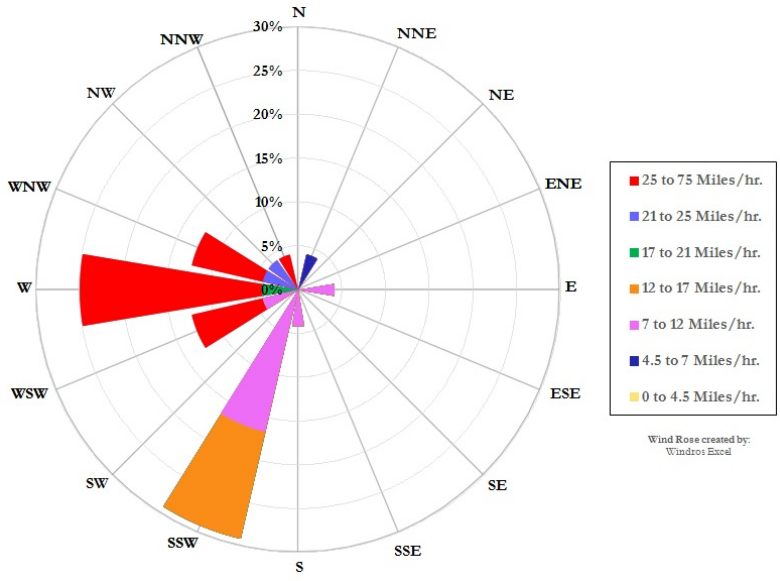


FIGURE B-22
FISH CREEK MOUNTAINS WIND ROSE (GUSTS ONLY)—OCTOBER 1, 2015



Figs B-21 & B-22: The Fish Creek Mountains (MesoWest Station ID FHCC1) wind data from the University of Utah's MesoWest system

FIGURE B-23
NAVAL TEST BASE
WIND SPEED & DIRECTION

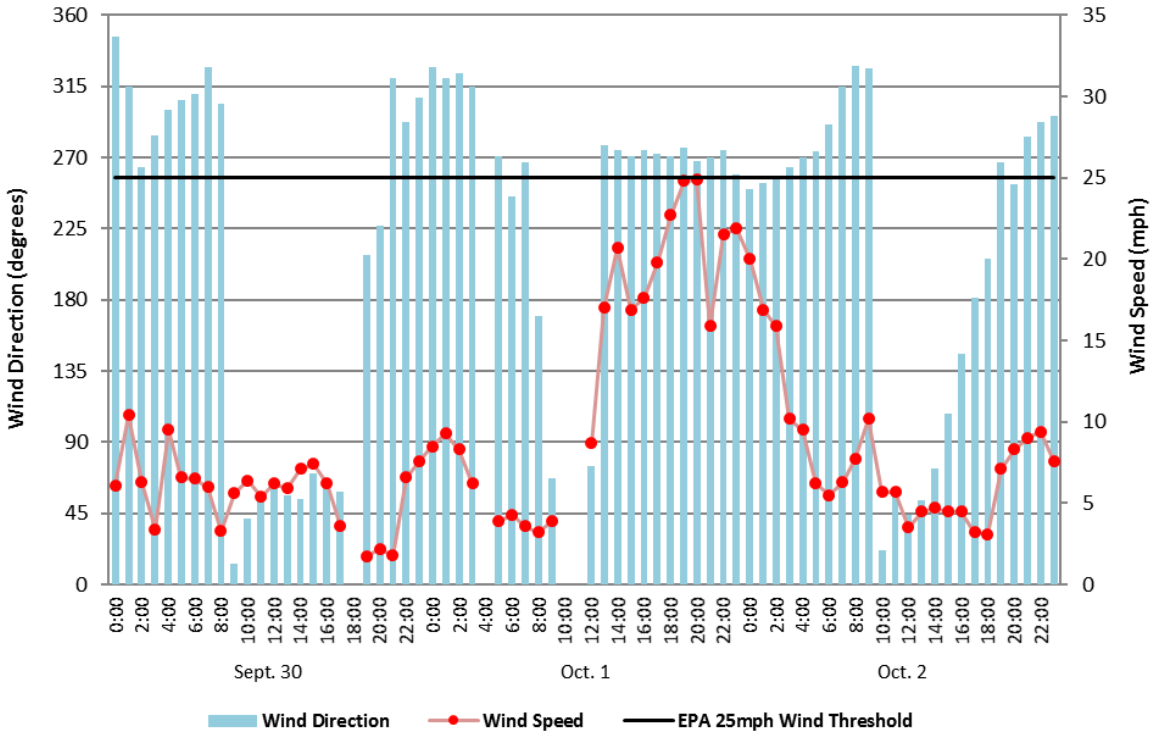
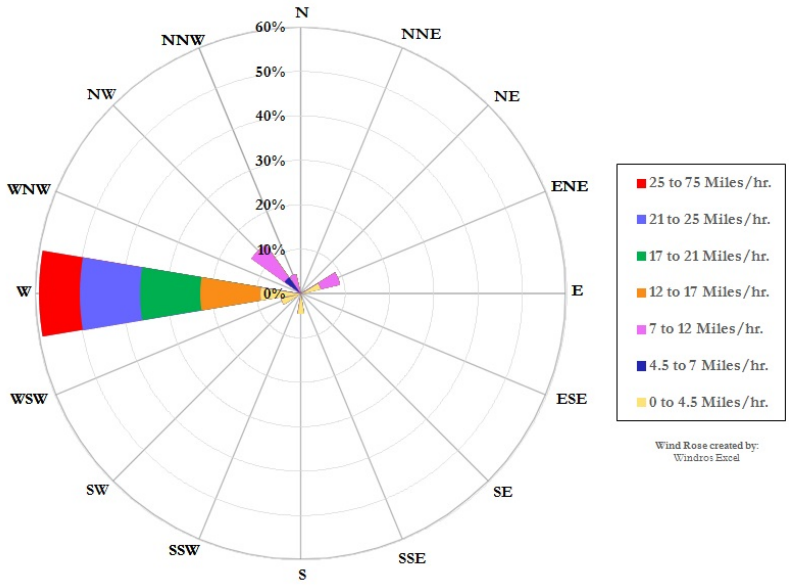


FIGURE B-24
NAVAL TEST BASE WIND ROSE—OCTOBER 1, 2015



Figs B-23 & B-24: The former Naval Test Base wind data is from AQMIS2

FIGURE B-25
SALTON CITY WIND SPEED & DIRECTION

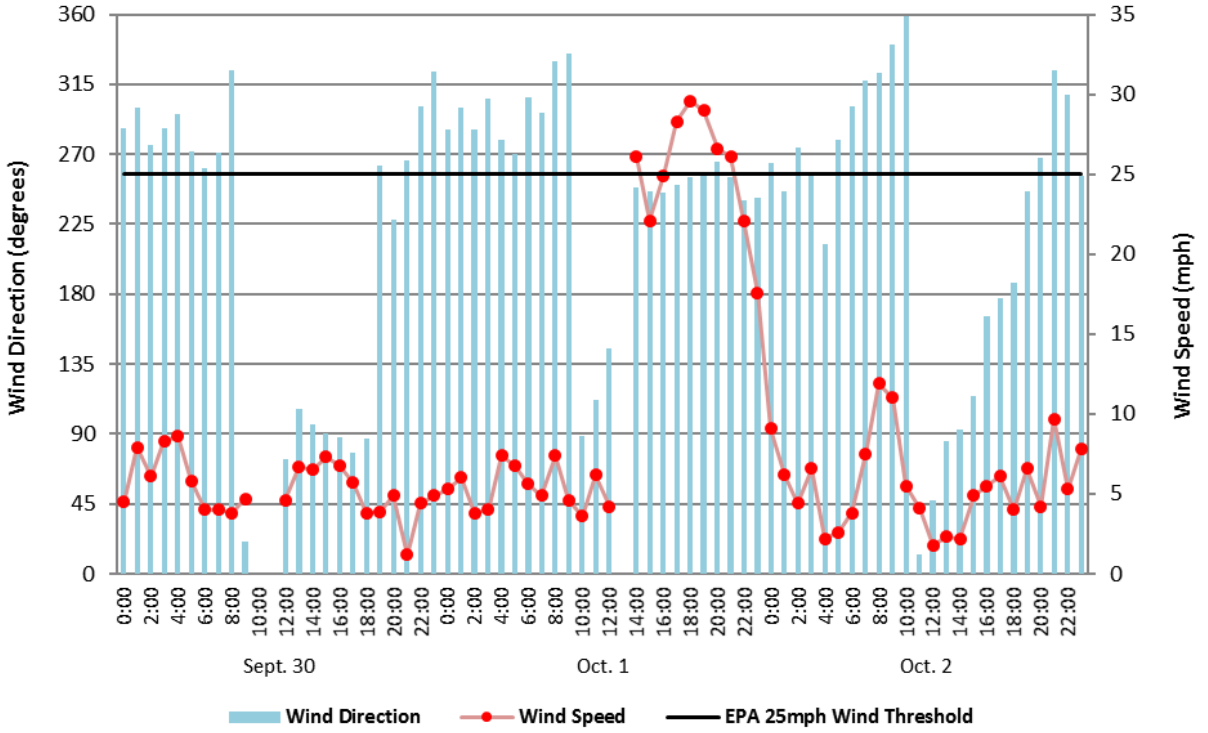
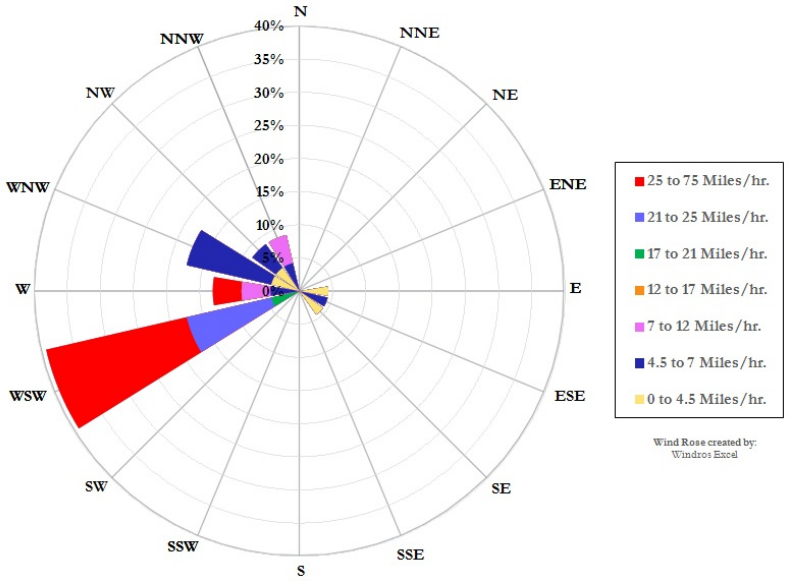


FIGURE B-26
SALTON CITY WIND ROSE—OCTOBER 1, 2015



Figs B-25 & B-26: Salton City recorded five winds above the 25-mph threshold, and a sixth one just under the threshold. See wind rose on following page. Data from AQMIS

FIGURE B-27
EL CENTRO NAF QCLCD

U.S. Department of Commerce
National Oceanic & Atmospheric Administration

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA (may be updated)
HOURLY OBSERVATIONS TABLE
NAF (23199)
EL CENTRO, CA
(10/2015)

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801

Elevation: -42 ft. below sea level
Latitude: 32.816
Longitude: -115.683
Data Version: VER2

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp		Wet Bulb Temp		Dew Point Temp		Rel Humd %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip. Total (in)	Alti-meter (in. hg)
						(F)	(C)	(F)	(C)	(F)	(C)											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
01	0056	5	CLR	10.00		79	26.1	62	16.7	50	10.0	36	5	070		29.79			29.79	AA		29.75
01	0156	5	CLR	10.00		77	25.0	65	18.2	57	13.9	50	5	160		29.78			29.79	AA		29.74
01	0256	5	CLR	10.00		77	25.0	68	19.7	62	16.7	60	5	160		29.78			29.79	AA		29.74
01	0356	5	CLR	10.00		75	23.9	66	18.7	60	15.6	60	0	000		29.79			29.80	AA		29.75
01	0456	5	CLR	10.00		73	22.8	66	18.9	62	16.7	69	5	180		29.81			29.81	AA		29.77
01	0556	5	CLR	10.00		71	21.7	62	16.4	55	12.8	57	0	000		29.83			29.83	AA		29.79
01	0656	5	CLR	10.00		77	25.0	66	19.1	60	15.6	56	0	000		29.85			29.85	AA		29.81
01	0756	5	CLR	10.00		82	27.8	70	20.9	63	17.2	53	0	000		29.86			29.86	AA		29.82
01	0856	5	CLR	10.00		92	33.3	69	20.7	56	13.3	30	3	030		29.87			29.88	AA		29.83
01	0956	5	FEW250	10.00		98	36.7	69	20.5	51	10.6	20	3	030		29.86			29.87	AA		29.82
01	1056	5	FEW200	10.00		101	38.3	67	19.5	44	6.7	14	6	040		29.84			29.84	AA		29.80
01	1156	5	FEW200	10.00		104	40.0	68	19.7	42	5.6	12	6	340		29.82			29.83	AA		29.78
01	1256	5	FEW200	10.00		106	41.1	67	19.4	38	3.3	10	15	230	22	29.79			29.80	AA		29.75
01	1356	5	FEW200	10.00		106	41.1	66	19.1	36	2.2	9	20	240		29.78			29.79	AA		29.74
01	1456	5	FEW200 FEW250	10.00		104	40.0	67	19.3	40	4.4	11	24	230		29.79			29.79	AA		29.75
01	1556	5	FEW200 SCT250	10.00		100	37.8	64	17.8	35	1.7	10	23	240	30	29.78			29.79	AA		29.74
01	1656	5	FEW200 FEW250	10.00		97	36.1	64	17.9	39	3.9	13	18	250		29.79			29.79	AA		29.75
01	1756	5	SCT200 SCT250	10.00		92	33.3	64	17.9	44	6.7	19	25	250		29.80			29.81	AA		29.76
01	1856	5	SCT200	10.00		90	32.2	64	17.5	44	6.7	20	22	260		29.82			29.82	AA		29.78
01	1956	5	FEW200	10.00		88	31.1	63	16.9	43	6.1	21	17	270		29.83			29.84	AA		29.79
01	2056	5	FEW200 FEW250	10.00		86	30.0	63	17.0	45	7.2	24	17	280		29.85			29.85	AA	T	29.81
01	2156	5	SCT200	10.00		84	28.9	62	16.8	46	7.8	27	20	270		29.86			29.87	AA		29.82
01	2256	5	CLR	6.00	HZ	82	27.8	61	16.2	45	7.2	27	18	280		29.86			29.86	AA		29.82
01	2356	5	CLR	10.00		81	27.2	60	15.8	44	6.7	27	16	270		29.86			29.86	AA		29.82

Dynamically generated Fri Apr 08 19:12:02 EDT 2016 via http://www.ncdc.noaa.gov/qclcd/QCLCD

FIGURE B-28
IMPERIAL COUNTY AIRPORT QCLCD

U.S. Department of Commerce
National Oceanic & Atmospheric Administration

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA (final)
HOURLY OBSERVATIONS TABLE
IMPERIAL COUNTY AIRPORT (03144)
IMPERIAL, CA
(10/2015)

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801

Elevation: -58 ft. below sea level
Latitude: 32.834
Longitude: -115.578
Data Version: VER2

Date	Time (LST)	Station Type	Sky Conditions	Visibility (SM)	Weather Type	Dry Bulb Temp		Wet Bulb Temp		Dew Point Temp		Rel Humd %	Wind Speed (MPH)	Wind Dir	Wind Gusts (MPH)	Station Pressure (in. hg)	Press Tend	Net 3-hr Chg (mb)	Sea Level Pressure (in. hg)	Report Type	Precip. Total (in)	Alti-meter (in. hg)
						(F)	(C)	(F)	(C)	(F)	(C)											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
01	0053	12	CLR	10.00		83	28.3	67	19.3	57	13.9	41	0	000		29.79			29.73	AA		29.73
01	0153	12	CLR	10.00		82	27.8	70	20.9	63	17.2	53	9	130		29.78			29.72	AA		29.72
01	0253	12	CLR	10.00		81	27.2	72	22.0	67	19.4s	63	7	150		29.78			29.72	AA		29.72
01	0353	12	CLR	10.00		81	27.2	70	21.1	64	17.8	56	3	180		29.79			29.73	AA		29.73
01	0453	12	CLR	10.00		80	26.7	69	20.3	62	16.7	54	6	150		29.80			29.74	AA		29.74
01	0553	12	CLR	10.00		75	23.9	68	20.0	64	17.8	69	0	000		29.83			29.77	AA		29.77
01	0653	12	CLR	10.00		77	25.0	69	20.7	65	18.3	67	0	000		29.85			29.79	AA		29.79
01	0753	12	CLR	10.00		84	28.9	71	21.9	65	18.3	53	0	000		29.86			29.80	AA		29.80
01	0853	12	CLR	10.00		91	32.8	73	22.7	64	17.8	41	3	VR		29.87			29.81	AA		29.81
01	0953	12	CLR	10.00		97	36.1	69	20.5	52	11.1	22	0	000		29.87			29.81	AA		29.81
01	1053	12	CLR	10.00		100	37.8	68	20.0	47	8.3	17	0	000		29.85			29.79	AA		29.79
01	1153	12	CLR	10.00		103	39.4	68	20.1	45	7.2	14	0	000		29.82			29.76	AA		29.76
01	1253	12	CLR	10.00		105	40.6	68	20.0	43	6.1	12	10	260		29.79			29.74	AA		29.73
01	1353	12	CLR	10.00		106	41.1	67	19.2	37	2.8	9	11	230		29.78			29.72	AA		29.72
01	1453	12	CLR	8.00		104	40.0	68	19.9	43	6.1	13	20	250	30	29.78			29.72	AA		29.72
01	1553	12	CLR	10.00		100	37.8	66	18.8	41	5.0	13	21	250		29.77			29.72	AA		29.71
01	1653	12	CLR	10.00		95	35.0	65	18.3	43	6.1	17	15	250		29.78			29.72	AA		29.72
01	1753	12	CLR	10.00		91	32.8	65	18.1	46	7.8	21	17	260		29.79			29.73	AA		29.73
01	1853	12	CLR	10.00		89	31.7	64	17.8	46	7.8	23	17	260		29.81			29.75	AA		29.75
01	1953	12	CLR	10.00		88	31.1	64	17.6	46	7.8	23	17	290		29.82			29.76	AA		29.76
01	2053	12	CLR	10.00		86	30.0	63	17.4	47	8.3	26	17	290	24	29.84			29.78	AA		29.78
01	2153	12	CLR	10.00		84	28.9	63	17.3	48	8.9	29	15	290		29.85			29.79	AA		29.79
01	2253	12	CLR	7.00		83	28.3	62	16.8	47	8.3	28	15	280		29.85			29.79	AA		29.79
01	2353	12	CLR	10.00		81	27.2	61	16.2	46	7.8	29	11	290		29.86			29.80	AA		29.80

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